

What is claimed is:

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1. A portable transceiver of one or more signals, comprising
  - an input for receiving the one or more signals;
  - a frequency modulator coupled with the input and modulating the one or more signals;
  - 5 a splitter coupled with the frequency modulator to divide the modulated signal into laser data signals;
  - a plurality of lasers coupled with the splitter to receive the laser data signals, the lasers being displaced from one another and facing in parallel directions.
2. The portable transceiver of claim 1, the plurality of lasers including a laser driver coupled with the splitter and conditioning the laser data signals and laser diodes driven by the conditioned laser data signals, respectively.
3. The portable transceiver of claim 2, the plurality of lasers further including lenses receiving the laser outputs, respectively, and collimating the outputs into beams of less than 1° cone angle each.
4. The portable transceiver of claim 2, the laser driver including a modulation signal amplifier coupled with the splitter and a DC bias circuit coupled between the modulation signal amplifier and one of the laser diodes.
5. The portable transceiver of claim 4, the laser driver further including a photodiode, a fiber optic element sampling the laser diode output and extending to the photodiode, the modulation signal amplifier being coupled with the photodiode and responsive to the output of the photodiode.
6. The portable transceiver of claim 4, the laser driver including

modulation signal amplifiers coupled with the splitter and DC bias circuits coupled between the modulation signal amplifiers and the laser diodes, respectively.

7. The portable transceiver of claim 2, the laser driver generating a continuous sine wave to each laser with a 20 megahertz bandwidth.

8. The portable transceiver of claim 7, each laser diode generating an average power of 80 milliwatts.

9. The portable transceiver of claim 8, there being four laser diodes.

10. The portable transceiver of claim 1 further comprising a visual sighting scope aligned with the lasers.

11. The portable transceiver of claim 1 further comprising a video subcarrier generator coupled with the frequency modulator.

12. The portable transceiver of claim 11 further comprising two audio subcarrier generators coupled with the frequency modulator.

13. The portable structure of claim 1 further comprising an aperture;

a Mangin mirror in line with the aperture facing in a parallel direction to the lasers;

5 a photodiode at the focal point of the Mangin mirror;  
a frequency demodulator in communication with the photodiode;  
an output from the frequency demodulator.

14. The portable transceiver of claim 13 further comprising a preamplifier coupled with the photodiode;

an automatic gain control coupled with the preamplifier and with the

frequency demodulator.

15. The portable transceiver of claim 13 further comprising  
a hemispherical interference filter having a center of curvature at the focal  
point of the Mangin mirror.

16. The portable transceiver of claim 15, the hemispherical interference  
filter being an optical filter having a nominal center wavelength of 1550 nanometers.

17. The portable transceiver of claim 16, the hemispherical interference  
filter having a narrow bandwidth of 100 nanometers.

18. The portable transceiver of claim 13, the Mangin mirror having an f-  
number of about 0.67.

19. The portable transceiver of claim 13 further comprising  
a video subcarrier generator coupled with the frequency demodulator.

20. The portable transceiver of claim 19 further comprising  
two audio subcarrier generators coupled with the frequency demodulator.

21. A portable transceiver of one or more signals, comprising  
an aperture;

a Mangin mirror in line with the aperture;

a photodiode at the focal point of the Mangin mirror;

an output from the photodiode.

22. The portable transceiver of claim 21 further comprising  
a preamplifier coupled with the photodiode;

an automatic gain control coupled with the preamplifier and with the output.

23. The portable transceiver of claim 21 further comprising

a hemispherical interference filter having a center of curvature at the focal point of the Mangin mirror.

24. The portable transceiver of claim 23, the hemispherical interference filter being an optical filter having a nominal center wavelength of 1550 nanometers.

25. The portable transceiver of claim 24, the hemispherical interference filter having a narrow bandwidth of 100 nanometers.

26. The portable transceiver of claim 21, the Mangin mirror having an f-number of about 0.67.

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a3 } 27. A portable transceiver of ethernet signals, comprising  
an input for receiving one of the ethernet signals;  
a splitter coupled with the input to divide the ethernet signal into laser data signals;  
5 a plurality of lasers coupled with the splitter to receive the laser data signals, the lasers being displaced from one another and facing in parallel directions.

28. The portable transceiver of claim 27, the plurality of lasers including a laser driver coupled with the splitter and conditioning the laser data signals and laser diodes driven by the conditioned laser data signals, respectively.

29. The portable transceiver of claim 28, the plurality of lasers further including lenses receiving the laser outputs, respectively, and collimating the outputs into beams of less than 1° cone angle each.

30. The portable transceiver of claim 28, the laser driver including a signal amplifier coupled with the splitter and a DC bias circuit coupled between the signal amplifier and one of the laser diodes.

31. The portable transceiver of claim 30, the laser driver further including a photodiode, a fiber optic element sampling the laser diode output and extending to the photodiode, the signal amplifier being coupled with the photodiode and responsive to the output of the photodiode.

32. The portable transceiver of claim 30, the laser driver including signal amplifiers coupled with the splitter and DC bias circuits coupled between the signal amplifiers and the laser diodes, respectively.

33. The portable transceiver of claim 28, there being four laser diodes.

34. The portable transceiver of claim 27 further comprising a visual sighting scope aligned with the lasers.

35. The portable structure of claim 27 further comprising an aperture;

a Mangin mirror in line with the aperture facing in a parallel direction to the lasers;

a photodiode at the focal point of the Mangin mirror;

an output from the photodiode.

36. The portable transceiver of claim 35 further comprising

a preamplifier coupled with the photodiode;

an automatic gain control coupled with the preamplifier and with the output.

37. The portable transceiver of claim 35 further comprising

a hemispherical interference filter having a center of curvature at the focal point of the Mangin mirror.

38. The portable transceiver of claim 37, the hemispherical interference

filter being an optical filter having a nominal center wavelength of 1550 nanometers.

39. The portable transceiver of claim 38, the hemispherical interference filter having a narrow bandwidth of 100 nanometers.

40. The portable transceiver of claim 35, the Mangin mirror having an f-number of about 0.67.

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